

MEDICAL AND SURGICAL REPORTER.

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ORIGINAL DEPARTMENT.

Communications.

DEFECTIVE AND IMPAIRED VISION.

By LAURENCE TURNBULL, M. D.,

Ophthalmic Surgeon to Howard Hospital, &c.

(Continued from p. 147.)

The Ophthalmoscopic Appearances in Glaucoma.

In a paper on glaucoma, by Mr. HULKE, published in the "Medico-Chirurgical Transactions," Vol. xliii., he has carefully noted the appearance of the eye during life, and there are several records of minute dissections, performed during the early stages of the disease, which are very valuable, since opportunities for such investigations must become more rare as a sure method of treating the affection has been discovered.

Mr. HULKE's general description of acute and chronic glaucoma does not differ in any respect from those which we have already given. But he calls particular attention to the flattening of the cornea, the result as has been shown experimentally of excessive distention.

Respecting the ophthalmoscopic signs, excavation of the optic nerve-entrance and pulsation of the central vessels, are characteristic signs with the veins abruptly bent and displaced laterally at its margin, which is seen in Fig. which has been carefully copied from reduced copies of the plates of Dr. EDWARD JAEGER.

"The abruptness of the excavation and its frequent extensions in a latent direction, undermining the sclero-choroidal foramen, so different in their features from the gently sloping hollow of the simply wasted nerve-entrance are unmistakable effects of over pressure. No traction from behind in the direction of the nerve trunk, as has been supposed to occur, is competent to explain these appearances; they are the combined effects of excessive intra-ocular pressure and wasting of the nerve tissue reduced by it."

It might be well here to state that a young beginner in looking at a hollowed optic disc for the first time will with difficulty persuade himself

that he is not looking at the outer surface of a sphere instead of into a cup, so deceptively does the hollow simulate a projection. This illusion results from a particular disposition of light and shade. A slight side movement of the object lens or speculum, by shifting the spot of most intense illumination, will dispel the illusion.

Frequently there are seen several small dotted hæmorrhage in the retina and filmy clots in the vitreous humor. The excavation is indicated by a bluish-grey color of the periphery of the optic disc, and a peculiar arrangement of its vessels. When slight these undergo a sudden diminution at the margin; when the hollow is deep they are abruptly bent, or their continuity apparently interrupted at the margin. In extreme excavation the bottom of the hollow lies outside the level of the choroidal foramen. He has dissected an eyeball where the lamina cribrosa itself was pushed outwards. The retinal hæmorrhages come from ruptured capillaries which have become varicose and sacculated from over-distention. The vitreous humor, both in acute and chronic glaucoma continues for a long time much firmer than natural. He has been much struck with this in several eyes which he has dissected at an early period of the disease, and has verified the same fact in the living eye, by puncturing the sclerotic, and endeavoring in vain to squeeze out some of the vitreous humor. In old cases where the lens had become brown the writer found the vitreous diffused. Mr. HULKE, in a recent dissection of acute glaucoma, found a thin stratum of yellow serum between the hyaloid and the membrana limitans of the retina. In a very typical case, he observed also on dissection the hollow of a large sclerotic staphyloma, wholly filled with very firm vitreous humor, in no way differing from the remainder. He agrees with GRAEFE that acute glaucoma is a *serous chloroditis*, and the whole pathology may be summed up thus: In the first instance, the choroid circulation gets deranged, hypertrophy of the vitreous humor ensues by endosmosis, as a consequence, and the retina and optic-nerve entrance is acted on secondarily by pressure.

Anæmia of the Optic Disc.

Simple anæmia of the optic disc shows itself by a corresponding pallor, the nerve-tissue retaining

its transparency so that the large vessels continue to be visible at some distance from the surface of the disc. The whiteness of a simply anæmic optic disc is dull and not glistening as the tendinous whiteness of atrophy. A rare cause of anæmia is the obstruction of the retinal artery by an embolus. The supply of blood to the optic disc and retina is suddenly cut off. The branches of the artery are empty and contracted, they contain but little blood and this only at intervals, intermediate portions being empty. The extremity of the nerve is blanched. A case of this kind has been recorded by V. GRAEFE.*

Atrophy of the Optic Disc and Retina.

This, as we have stated under the head of anæmia, has a peculiar tendinous or pearly whiteness, in consequence of this whiteness the atrophied optic disc is very conspicuous. Its outlines at first sharp, subsequently lose their distinctness and become ragged; and its surface becomes depressed. The following case is reported by HULKE:

"M. A. H., æt. 24 in July, 1858, whilst standing in the sun with her head uncovered, was suddenly seized with violent pains in the temples. On the second or third day after this, the pain extended to her neck and shoulders; she then fell from her chair in an epileptic fit. This was followed by hemiplegia of the left side, diplopia and rapid failure of vision, so that fourteen days afterwards when she came under my notice, the retinae were quite insensible to light. At this time I could detect nothing abnormal in the fundus, but on a second examination made December 16, 1859, I found the retinal vessels very much diminished in calibre, and the optic nerve-entrance was pearly white and sunken."

Researches on the Medical Properties and Applications of Protoxide of Nitrogen, Nitrous Oxide, or Laughing Gas.

By GEORGE J. ZIEGLER, M. D.

Of Philadelphia.

Notwithstanding the present activity in the search for new remedies and the manifest desire to discover such as are both conservative in character and efficient in action, attention appears to be still too exclusively concentrated upon those agents which are more purely medicinal in their nature rather than upon such as have a direct physiological compatibility with the vital organism. The undue tendency in this direction has of recent years, however, been materially modified in consequence of a better appreciation of the gene-

ral laws and correlations of physiology, pathology, hygiene, and therapeutics.

With this increased knowledge of medical science a more philosophical conception of the influence of nature and biological attributes of remedies has been acquired whereby it has become apparent that those agents which either subserve the immediate purpose of supplying elements of nutrition to, or in exerting a direct influence upon the functions of the living economy, or both combined, are, in the main, the most efficient and reliable for therapeutic purposes. Hence, notwithstanding apparent exceptions, it may be regarded as a general truism that the greater the physiological compatibility of medicinal agents the greater their remedial efficiency.

But, as just intimated, this vital compatibility of a compound character, being both of a material and dynamic nature, and manifested either singly or in conjunction with each other. Thus, for instance, such substances as iron, lime, potash, and soda, have an immediate material connection with the animal organism; while, on the other hand, quinia, strychnia, and others of the same class have a somewhat direct dynamic relation thereto; light, heat, electricity, and all influences of a psychical nature being still more purely dynamic in their properties and effects; whereas phosphorus and some other agents of a similar character, subserve both a material and dynamic purpose in the processes of life.

With a view, therefore, to concentrate attention upon a remarkable agent of the kind last indicated, as well as to intensify thought upon the general subject of the physiological compatibility of remedies, I propose in this paper to present some general observations upon the medical properties and applications of nitrous oxide, referring those interested for a more extended notice thereof to my former publications respectively entitled *Zoo-Adynamia*; *Toxicological*, but which should have been *Antidotal Applications of Nitrous Oxide*,* *Boston Med. and Surg. Jour.*, Vol. xlv., No. 14; *Anæmatosis*, its consequences, prevention, and treatment, *Ibid.* Vol. xlv., Nos. 22, 23; *Experimental Investigations on the Antidotal and Revivifying Properties of Nitrous Oxide*, *Ibid.* xlvii., No. 19; *Hæmatosis*, its natural and artificial induction, *Ibid.* xlix, Nos. 3, 4, 5, 6; *Glucosis*, *Ibid.* Vol. L., No. 11; *Nitrous Oxide*, its properties and applications, *Dental Cosmos*, Vol. i., No. 12; *Nitrous Oxide*, its medical properties and applications, *Boston Med. and Surg. Jour.*, Vol. lxxvii., No. 25, and *Amer. Med. Times*, Vol. vi., No. 6; *Nitrous Oxide in Asphyxia*, *MED. AND SURG. REPORTER*, Vol.

* V. GRAEFE, Ueber Embolie der Arteria centralis retinae als Ursache plötzlicher Erblindung. *Archiv. F. Ophth.* Bd. v. Abth. 1, S. 138.

* Several typographical errors occur in this and other papers partly from not having had an opportunity to see the proof.

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Nos. 21, 22; Nitrous Oxide as an Anæsthetic, *Mental Cosmos*, Vol. v., No. 5.

In the effort, therefore, to render this exposition succinct, comprehensive, and practical as possible,

I will treat of the subject under the several heads, of first, the chemical constitution, properties, and correlations of protoxide of nitrogen; second, its physiological influences and hygienic uses; third, its medicinal properties and applications, therapeutic, revivifying, antidotal, and anæsthetic; fourth, its preparation and combinations; and, fifth, its modes of administration and effects.

Chemical Constitution, Properties, and Correlations of Nitrous Oxide.

In the first place, with regard to its constitution, nitrous oxide is a chemical compound in equivalent proportions of the two gaseous elements nitrogen and oxygen, hence designated in accordance with the usual nomenclature and notation protoxide of nitrogen, with the symbol NO, and equivalent numbers 22,00. It is an elastic, colorless gas of the sp. gr. 1,527, having a somewhat faint, but agreeable odor, and sweetish taste, which it imparts to water. Under a pressure of about 30 atmospheres at 0°, or 50 atmospheres at a temperature of 45° F, this gas condenses into a colorless transparent liquid, and from between 100° to 150° degrees below zero solidifies into a beautiful clear crystalline body. The evaporation of this solid protoxide of nitrogen produces a degree of cold far greater than that of carbonic acid in vacuo, yet as it evaporates slowly it does not, like the latter, solidify by its own vaporization.

The fact that protoxide of nitrogen is capable of being thus somewhat readily reduced to a liquid and solid state is now of very little more than scientific interest; but the time is probably not very far distant when it will become of the utmost practical value in view of the many and highly important medical purposes to which this remarkable agent is applicable.

In composition nitrous oxide differs from all other chemical bodies, although identical in constitution in the main, with atmospheric air, varying therefrom, however, both in the proportion of its constituent elements, and in the character of their association. Thus while nitrous oxide contains about one-third of oxygen to two-thirds of nitrogen, atmospheric air has only about one-fifth of the former to four-fifths of the latter. Moreover in nitrous oxide the respective elements, nitrogen and oxygen, are in chemical combination with each other, whereas in atmospheric air they are in but simple mechanical association without any apparent chemical union whatever. Nevertheless

though thus differing in the relative proportion and character of association of these constitutional elements protoxide of nitrogen and atmospheric air are similar in their general properties and relations, varying more in the degree, perhaps, than in the nature of their affinitive reactions and physiological effects.

Besides atmospheric air nitrous oxide is closely correlated with oxygen, to which indeed it is so directly identified as to encourage the belief that all its active properties as well as those of its congener—atmospheric air—depend exclusively upon this one element, but that such is not the fact we expect to make evident hereafter, notwithstanding the apparent similarity throughout of these respective agents, for in most of their prominent features they resemble each other so strikingly as to give rise to the impression of their interdependence upon one and the same substance just mentioned. This general similitude is especially manifest in the chemical and vital reactions, for like atmospheric air and oxygen, protoxide of nitrogen is an active supporter of combustion and of life, though in these respects it is in some measure more nearly allied to the latter than the former, from the greater relative proportion of this important element as well as in consequence, doubtless, of the peculiar combination of its constituents. While, however, there is thus an intimate mechanical, chemical, and physiological correlation between these respective gaseous bodies, there are some specific differences in nature and properties manifested more particularly in their vital influences, which render them appropriate for distinct though somewhat similar medical purposes. But as a notice of these more in detail involves the consideration of another branch of the subject we will proceed to their further discussion in that connection.

Hospital Reports.

PHILADELPHIA HOSPITAL, }
February, 1864. }

SERVICE OF DR. DA COSTA.

Reported by Edward Rhoads, M. D., Resident Physician.

Subacute Rheumatism.

M. J., 18 years of age. Admitted into the ward Feb. 9, 1864. She had been sick for about six weeks with soreness and pain in the muscles and larger joints, attended occasionally with slight fever, but with little local swelling, heat, or redness. It was remarked that cardiac complication was the great danger in rheumatism, and that this was as much to be feared in a subacute case like that under consideration, as in the frank, inflammatory forms of the

affection. Clotting of blood and emboli might also occur in the latter instance, but were clinical curiosities. Auscultation revealed great frequency of the heart's action, with the first sound decidedly muffled. Pulse frequent, rather jerky, lacking a full, decided volume. Hence it might be inferred with great certainty that the endocardium was affected. Instead of the muffling a blowing sound often occurs, but we should not wait for this to pronounce upon the existence of endocardial disease. To the mind of the speaker muffling of the sound was almost as certain an evidence of this condition as a genuine bruit de soufflet. The diaphoretic, laxative, and alkaline treatment (Dover's powder, nitrate of potassa, Rochelle salt) had been in this case adopted with advantage, and the lecturer was inclined to believe it the best both for acute and subacute forms. Part of the materies morbi could thus be eliminated, and the alkali in the blood would counteract the poison, which both physiological experiment and a vast amount of clinical experience proved to be acid. As the disease lapsed more and more into a chronic state, iodide of potassium and wine of colchicum root would be very useful, Dover's powder being still employed at night. Colchicum was of no advantage in acute rheumatism. With regard to the cardiac complication, the iodide of potassium would act favorably upon whatever lymph might have been effused and its operation should be aided by a blister over the heart.

Duchenne's Disease.

J. M., 40 years of age. Three years ago he first felt pains in his back and legs, accompanied by irregular muscular action in the latter, and inability to control their movements. He improved considerably under treatment, but the disease gradually progressed from that time, the ameliorations being temporary. At the time of his admission into this hospital, Jan. 4, 1864, he could stand with the aid of a cane, but was unable to walk without additional support, not from the absence of muscular power, but because the faculty of regulating and co-ordinating its action was lost. He complained of a constant feeling of constriction around the body, of obtunded sensation on putting his feet to the ground, as though walking on soft cushions, of formication, and particularly, of violent lancinating pains in the back and legs. When his eyes were closed he would instantly fall to the ground, being altogether unable to stand or step. He had control over the sphincter ani. The urine, of which there was frequent incontinence, was alkaline, of specific gravity 1027, and deposited abundantly phosphates and urates. The case was diagnosed as one of "Duchenne's disease." The recognition of this affection was stated to be an outgrowth of modern pathology. Three prominent symptoms presented:—First, a progressive diminution of the power of locomotion, due rather, to want of co-ordination of muscular action than to loss of actual force. Secondly, entire inability to stand or walk in the dark. Thirdly, violent acute pains in the limbs.

Some unknown lesion of the spinal cord must exist. It could not be softening, which would give rise to much more paralysis and less pain. Prognosis ultimately fatal, patients never recovering, although periods of amelioration might occur. The eyes would soon become affected, either with strabismus or impaired vision. Galvanism was probably by far the best remedy, and should be daily applied along the various nerves, and to different groups of muscles. Duchenne reported a number of cases in which the progress of this disease was thus tempo-

rarily arrested. Not much could be hoped for from internal agents, but the nervous tonics might be useful. Therefore ordered sulphate of zinc and extract of nuxvomica. To prevent nocturnal discharge of urine, take of belladonna extract one quarter of a grain at bedtime.

Probable Hepatic Cancer.

T. S., 40 years of age. Admitted Jan. 16, 1864. His health had been gradually failing for about two years without the occurrence of acute symptoms at any time. He had become emaciated and much enfeebled. His eye evidently jaundiced; skin pale with a yellowish tint, otherwise normal. Tongue slightly coated; pulse small, 100 per minute. The digestive functions were impaired, but food appeared to pass both into and out of the stomach. Examination of the abdomen revealed distention of its walls, due principally to flatus. In the right hypochondriac and epigastric regions appeared a distinct bulging which presented hard resistance to pressure with the finger. Tenderness moderate. Percussion indicated that the superior border of the liver was in its normal position, but that the lower edge extended fully one inch and a half below the ordinary line. The percussion dulness in the epigastrium was apparently continuous with the left hepatic lobe. The difficulty of accurate diagnosis of all abdominal tumors was alluded to. Reasoning, however, from the data presented this must be either a thickening of the stomach coats *i. e.* a gastric tumor pressing upon the biliary duct; disease of the liver itself; or some morbid mass pressing upon but not connected with either liver or stomach. The physical signs rendered the existence of the last condition improbable, and the absence of grave gastric symptoms was sufficient, in connection with the same signs, to exclude the first. We might consider, therefore, hepatic enlargement as an ascertained element in the diagnosis. It was remarked that this enlargement of the liver associated with tenderness was always a suspicious symptom, being usually attendant upon disease of the gall bladder, hepatic abscess, or cancer. That the gall bladder should be so distended, or otherwise affected, as to produce the tumor under consideration was, from its position, physically impossible. Abscess would usually produce much more constitutional disturbance, cause a smoother swelling with an indistinct sense of fluctuation. This, on the contrary, was hard and somewhat nodulated. The existence of carcinoma was thus shown to be probable, but would be rendered more so were the tenderness greater. The diagnosis could not be positive. The absence of excessive constitutional disturbance would not conflict with the presence of cancer, if this were assumed; for clinical experience had not borne out a priori reasoning on this point. Nor would ascites necessarily occur. Jaundice also, must not always be looked for. The speaker had known a case of hepatic cancer coexist with a blooming complexion and not a trace of jaundice. Prognosis unfavorable. The physicians who formerly maintained the curability of this disease had since confessed they confounded it with syphilis of the liver. Ordered good diet.

R. Liq. iodini comp. gtt. viij. t. d.

Contum might be used both externally and internally, if indicated, to relieve pain. It possibly had some influence in retarding the progress of the affection, but could not be relied on, nor would any measures be attended with permanent benefit.

This patient has since died, and the post mortem justified the diagnosis.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, APRIL 2, 1864.

PHYSICIANS AND DRUGGISTS.

The following unsuccessful bait held out to an honorable physician of this city, has fallen into our hands, and we propose to make it the text for a few remarks:

"PHILADELPHIA, Jan. 1, 1864.

DEAR SIR:—Having enjoyed a reasonable number of your prescriptions during the past year, I now purpose giving you a percentage upon all your prescriptions put up at my Drug Store. Should this meet your approbation call at my store at your earliest leisure, when we can decide upon the percent. age, etc.

Respectfully yours,"

The man who indited the above, certainly had an eye to business, and he no doubt thought that the beginning of a new year was a favorable time to negotiate for an extension of custom.

We have no knowledge to what extent the disgraceful collusion between physicians and druggists, implied in the above note, is carried on in this city, but have reason to fear that many of both callings disgrace themselves and humanity by such arrangements for mutual pecuniary advantage, at the expense of the sick and suffering, many of whom, struggling with poverty, are compelled to deny themselves and their families necessary articles of food and clothing in order, during sickness, to spare the means required to pay for medicine.

Physicians, in justice to themselves and their patients, should dispense their own medicines. It is a radically wrong principle, the offspring of an indisposition to compound one's own medicines, and an ambition to attend a large number of patients, that throws this business into drug stores. If physicians were more attentive to a few patients, prepared their own medicines, watched their cases more closely, and adapted their remedies to the different phases of the disorder, they would do more good to their patients, and gain more credit for themselves and their profession. It really seems sometimes as if the greatest ambition of some physicians is to write prescriptions, and order different kinds of medicines. "Just see there," said a physician despairingly, who had for sometime been attending an infant, as he sur-

veyed a whole sideboard paved with bottles and boxes, "Just see there, I have ordered all that medicine and it has done no good, what more can I do for the poor little thing!" This was very good for the druggist, very bad for the doctor and his profession, perhaps death to the little one, and an insult to the heart-broken mother to whom the language was addressed!

It really seems sometimes as if a good many medical men were in collusion with vendors of drugs. And who are these retail vendors of drugs? Let the spirit, construction, grammar and orthography of the epistle quoted above, serve as a sample of nine-tenths of them, for we believe we have made a liberal allowance when we say that not more than one-tenth of those who dispense physician's prescriptions have the slightest qualification for the business beyond that of money-making. The business of nine-tenths of the retail drug stores is confined chiefly to vending quack medicines, cigars and tobacco, soap, perfumery and toilet articles generally, mineral water, and often we fear with many of them, something stronger.

If custom requires that the physician should have his prescriptions compounded outside of his own office, let him send them to those who are known to be trustworthy, intelligent, and reliable, those who are not amenable to the above charges.

Finally, let the physician prescribe for his patients as if he were prescribing for the partner of his bosom, for his child, for himself,—let him nurse them more and dose them less. These remarks are by no means applicable to all physicians, but there are enough to whom they are applicable, and it is for such that they are intended.

Notes and Comments.

Another Military Medical Society.

We learn from the *Medical Times* that a Medical Society was recently formed among surgeons in the military department of the Ohio, at Knoxville. Thirty-five names were enrolled as members. The following were chosen officers: President, Surg. L. D. GRISWOLD, 103d O. V. I.; Secretary, Ass't Surg. DANIEL T. BOYNTON, 104th O. V. I. The meetings were appointed to be held weekly.

The Philadelphia College of Pharmacy.

In electing a Professor of *Materia Medica* to the chair in the Philadelphia College of Pharmacy made vacant by the death of the lamented ROBERT P. THOMAS, M. D., the Trustees have made a very judicious appointment. Mr. EDWARD PARRISH, Pharmaceutist of this city, was unanimously elected.

St. Louis Medical and Surgical Journal.

We have received the first number of the resuscitated *St. Louis Medical and Surgical Journal*, and welcome it back to our list of exchanges. It is to be issued bi-monthly, and will be under the editorial supervision of Drs. M. L. LINTON and F. W. WHITE. The number before us is filled with very interesting, practical articles. We hope that it will be well supported.

Self-Threading Surgeon's Needle.

We have received from a medical friend in Connecticut, a paper of Self-Threading Surgeon's Needles made by Mr. WM. PENN HYDE, at Warren, Rhode Island. They are threaded by merely laying the thread across the finger, passing the needle under it, and catching it in the eye, where it is secure. We should think that if Mr. HYDE would make his invention known to the profession, his needles would meet with a sale, as they are certainly very convenient.

The Government Hospitals in this City.

We recently noticed the transfer of the maimed soldiers from the Hospital at Sixty-fifth and Vine streets, (a rural location) to the Christian Street Hospital within the builded portion of the city. That hospital had been set apart for the treatment of nervous diseases. These patients who were removed to a rural location—the hospital on Turner's lane—could hardly be placed under more favorable circumstances. The attending physicians are singularly well adapted to the positions they occupy. Dr. DA COSTA has charge of the cases of heart disease, and Drs. S. W. MITCHELL and MOREHOUSE of the nervous cases. In many of the appointments to the charge of hospitals in this city, the Government has been extremely fortunate, in studying the welfare of the soldiers.

The following changes have recently taken place in other hospitals in this city:

Acting Assistant Surgeons D. P. Pancoast, A. Louis Eaken, and David Kennedy (late of Satterlee) have been recently ordered to Gen. Butler's Department; A. M. Shew to the Department of the South, and A. L. S. Morand, S. C. Minasian (late of Satterlee), and W. R. Bonsall (late of McClellan Hospital), to the Department of the Monongahela. Drs. T. Edwin Ridgway, Abram Sharpless, Isaac Massey and Henry Lippenott have received contracts as Acting Assistant Surgeons United States Army, and have been ordered to California, for which State they will sail on the 24th of this month.

Assistant Surgeon Knickerbocker, U. S. A., has been relieved from the charge of the Convalescent Hospital, Sixteenth and Filbert streets, and ordered to the Army of the Potomac.

Firmenich's Irritating Instrument.

We would call attention to the advertisement of the above instrument on another page. For the purposes indicated in the advertisement it seems to be well adapted. The instrument itself is very neat and compact in its arrangement and easily carried in the pocket. By its use counter-irritation can be readily produced over a circumscribed spot in a very short time by means of any agent the practitioner chooses.

Correspondence.

FOREIGN.

LETTERS FROM Dr. W. N. COTE.

PARIS, Feb. 25, 1864.

I continue my analysis of the Report of the Surgico-Medical Congress held at Rouen.

A New Symptom in Bright's Disease.

Dr. FAUVEL calls attention to a symptom of Bright's disease, exceedingly grave and but little known. He designates it by the name of *albuminuric aphonia*. In some cases, before any visible symptom indicates the existence of albuminuria, there appears an oedema of the mucous lining of the larynx. The patient feels a hoarseness, a slight trouble in the respiratory functions, the voice disappears, and suffocation may become imminent. These symptoms make their appearance in a sudden manner or quite insidiously; they are in some cases intermittent, but in this case the progress of the disease always interferes with the act of respiration. Should not the attention be called to the possibility of there being Bright's disease, the accidents may be attributed to different causes, such as syphilis for example, and a wrong treatment applied for so long as the main disease is not kept in view, the different modes of treatment employed are altogether useless, if not hurtful. The employment of the laryngoscope enables the practitioner to examine the state of the larynx and follow step by step the progress of the disease. The arytheno-epiglottic folds, the mucous coat of the vestibula, the superior vocal cords, the ventriculi, and inferior vocal cords, are seen to be in a state of tumefaction. By means of the laryngoscope Dr. FAUVEL has been enabled to determine exactly the precise moment when tracheotomy was becoming urgent, and he has thus saved many patients who would have perished in all probability but for this precious resource.

Urethrotomy.

Dr. BOUTELLER read a paper from Dr. BETRAN, of Paris, on urethrotomy in stricture of the urethra. The writer recommends at first dilatation of the stricture by waxen or gum elastic bougies. Should the introduction of bougies determine nervous or grave febrile accidents, urethrotomy must be had

recourse to, the operation to be performed interiorly and from backward forward. For my part I have often seen Dr. MAISONNEUVE of this city, perform urethrotomy in cases of irreducible stricture by means of an instrument closely resembling that used by Dr. PHYSICK, and which consists in a sort of lancet concealed in a canula, that may be pushed forward or retracted at pleasure. Immediately after the division of the stricture, a catheter is introduced and the patient experiences the greatest possible relief. This operation is attended with but little pain, and with no risk, provided the operator possess an accurate knowledge of the structure of the parts. It is well known that in ignorant hands, false passages, ulcerations, and effusion of urine may follow. In order to prevent such mistakes, Dr. MAISONNEUVE, before dividing the stricture, makes it a rule to proceed as gradually and cautiously as possible in using the bougie commencing with one of moderate size, such as will pass readily through the strictures without giving pain or producing hemorrhage. The bougie once introduced, the canula armed with a lancet, is made to adapt itself to the bougie by means of a small screw, and is then introduced into the urethra when by pushing the lancet the strictures are divided. After the division of the stricture a bougie or catheter must be worn for some time to prevent the passage from closing again, and protect the parts operated upon from becoming inflamed by contact with the urine.

Fracture of Clavicle by Muscular Contraction.

It is well known that the muscles are generally more or less concerned in the production of fractures, and, that in many instances, without any other co-operating power they break the largest and strongest bones. Dr. MELAYS communicates an observation of fracture of the clavicle produced by muscular contraction. The rarity of such facts (there having been hitherto but three cases of the kind mentioned in surgical records) and the circumstances under which the fracture took place, give additional interest to this observation.

A young girl seventeen years of age, and altogether free from any constitutional disease, was engaged playing at shuttle when all at once, after lifting her arm, she felt severe pain in the right shoulder. The right clavicle was fractured near the external extremity of the third part of the bone. Dr. MELAYS explains the occurrence of this fracture from violent traction exercised on the clavicle by the great pectoral muscle and the anterior fibres of the deltoid, the inner half of the clavicle being maintained immovable by the costo-clavicular ligament and the sub-clavian muscle.

Treatment of Tetanus by Electricity.

In the Academy of Sciences, Dr. MATTEUCI lately described a case of lockjaw, in which the patient was subjected to the action of a voltaic column of thirty or forty couples. Under the influence of the electric currents the tetanic shocks diminished in intensity, and the patient could open and shut his

mouth; but the relief was only temporary, and the contractions returned in spite of the action of the current, which was then discontinued for a short time, and resumed with a pile of about sixty elements. Again an improvement became manifest, and these alternations of relief and relapse continued for several hours, but the beneficial effects of the current gradually diminished, until they ceased altogether. Dr. FARINI, who practised medicine at the time this experiment was made (1838), and who has since become celebrated as a statesman, told M. MATTEUCI that the disorder was caused by the existence of extraneous bodies in the patient's leg. M. MATTEUCI concluded with remarking that, since electricity produces relief in lockjaw, which is almost the only result to be hoped for, the attention of practitioners should be called to it.

Essence (Oil) of Turpentine in Nervous Complaints.

Dr. TESSIER, in a late lecture, recommended essence of turpentine as a specific for nervous headaches and hemicrania, even when accompanied with vertigo, and to which females are especially subject. He adds that this remedy has been borne without difficulty by the most delicate subjects, the appetite and digestive functions not being in the least disturbed thereby. Although essence of turpentine, when applied to the skin, produces redness and irritation, it is perfectly innocuous when introduced into the stomach.

Naval Hygiene.

Dr. DUTROULEAU examines the effects of modern naval improvements in a hygienic point of view. Paddle-steamers are superior to screws as regards oscillation, but the atmosphere in screw steamers is rather better, the engine-room being apart from the rest of the vessel, and in general, owing to the short time in which passages are effected in consequence of steam, most nautical diseases have lost their virulence. As regards those endemic maladies which are peculiar to hot countries, the frequent removal of air caused by steam is found to be to a certain extent a preservative against them.

W. N. COTE.

DOMESTIC.

ANÆSTHESIA.

Dr. CHARLES T. JACKSON and his assertion that the protoxide of nitrogen or nitrous oxyd gas has no anæsthetic properties whatever.

EDITOR MEDICAL AND SURGICAL REPORTER:

"Oh! that mine adversary had written a book," was the exclamation of a venerated patriarch, and why? Because he felt assured that if the advocate of false doctrine had undertaken its vindication in writing, he would have compromised himself irretrievably. Now this is precisely what the learned Dr. CHARLES T. JACKSON has done—he has written his book and how he stands affected thereby your readers will judge from the following extract:

"By oft repeated experiments inhaling protoxide of nitrogen myself, and by administering it to others in every possible way by large and small orifices, I soon became fully satisfied that it possessed no anæsthetic properties. HORACE WELLS, a dentist of Hartford, Connecticut, repeated DAVY's experiments in Boston in 1844, extracting teeth from persons to whom he administered the protoxide of nitrogen. I did not witness his experiments but understood from others that he failed to render his subjects insensible to pain. In 1847 he met with a similar failure in the hospitals of New York, thus fully sustaining the conclusions of DAVY that this gas will not prevent the sensation of pain."

"In the experiment with protoxide of nitrogen made under the direction of the Hon. TRUMAN SMITH, at Washington, the subject was rendered unconscious by asphyxia, the opening through the stop-cock of the gas-bag being only of the size of a knitting-needle."*

If these representations in their general aspect and bearing are true, then it would seem that a certain Rt. Rev. Bishop of the Protestant Episcopal Church, had not all that reverence for the sacred injunction against bearing "false witness" which he should have had, as some years ago he made and swore to the following deposition:

"I, THOMAS C. BROWNELL, of the city and county of Hartford, depose and say that on or before the first of January, 1848, my daughter, FRANCES C. BROWNELL, had five teeth extracted by Dr. RIGGS, a dentist of this city, she being at the time under the influence of the nitrous oxyd gas, administered to her by the late Dr. WELLS. I was present at the operation and saw no evidence that my daughter was conscious of suffering, and she told me afterward that she felt no pain during the operation. A few weeks afterward she had three more teeth extracted while under the influence of ether, and with little appearance of suffering though she thought it less genial in its effects than the nitrous oxyd gas, and such was my own judgment of its operation.

T. C. BROWNELL.

Sworn before,
HENRY L. RIDER, N. P."

Also a highly respectable lay member of the church, Mr. FRANCIS C. GOODRICH would seem to be in the same unhappy category with the Rt. Rev. Bishop, for after swearing that in the latter part of December, 1844, he had a tooth extracted by Dr. WELLS while under the influence of the nitrous oxyd gas, he proceeds as follows: "The operation was performed in the presence of Drs. MARCY, KITTERIDGE, and RIGGS, and was unattended with even the slightest sensation of pain. The gas was administered by Dr. WELLS who was assisted by Dr. RIGGS, and in a few seconds after I commenced inhaling it I fell into a stupor and partially unconscious state, experiencing at first a sense of numbness in my

limbs followed by an indescribably rapturous or pleasurable sensation of the brain and increasing in intensity until I seemed, as it were, a mere spark or atom of matter floating away in the region of space. I was not, however, wholly unconscious during the entire operation; I knew when the instrument was applied to the tooth and heard remarks by those present, but neither felt nor feared pain, nor do I believe it possible to have inflicted pain upon me in any manner during the time my nervous system remained entirely under the influence of the exhilarating gas."

But the statement of Dr. JACKSON must be examined in some detail, and, therefore, I have to remark:

1. I am authorized by Mr. TRUMAN SMITH, to say that there is not any foundation for so much of the allegations of Dr. JACKSON as appertains to himself; that he witnessed, while in Washington, the administration of the nitrous oxyd only in a single instance, the subject being a particular friend now occupying a high position in the United States Volunteer Army, employed in Texas. He had one of his teeth extracted while under the influence of the gas, and on that occasion Mr. S. is quite sure that if a stop-cock with an orifice no larger than a knitting-needle had been employed, such an extraordinary feat could not have escaped either his notice or his recollection. He is unwilling to believe that Dr. JACKSON would make such a statement knowing it to be false, and therefore, he concludes that he (Dr. J.) has lent a credulous ear to the misrepresentations of others.

2. It will be observed with respect to the supposed experiments and failure of Dr. WELLS in the hospitals of New York in 1847, that Dr. JACKSON enters into no details whatever. He does not name the hospitals, specify the assertions, nor tell us who the subjects were, who the operating surgeons, who present, what the effect of the gas was in each case, nor any other of the many particulars necessary to authenticity and verisimilitude. He uses language implying that there were a succession of trials by WELLS and a succession of failures, all in 1847. Is there any probability in such a story? Hayting tried and failed once would a man so diffident, modest and sensitive, as WELLS is known to have been, be likely to try over and over again. Would the enlightened surgeons of New York tolerate such charlatany for a moment! Dr. J. also uses language implying personal knowledge, and yet he does not say he was present and it is quite certain he was not. I therefore have no hesitation in concluding that this last allegation is just as apocryphal as the first and is much too slatternly and loose to be worthy of serious notice.

3. With respect to the suggestion that Sir HUMPHREY DAVY came to the conclusion "that this gas will not prevent the sensation of pain," or in other words has no anæsthetic property, it is refuted by quotations which Dr. JACKSON, himself, makes from the works of that distinguished savant. It seems

* Jackson's Manual of Etherization, p. 13.

that Sir HUMPHREY on a certain occasion suffered much pain attendant on cutting a wisdom tooth, and JACKSON quotes him as follows: "On the day when the inflammation was most troublesome, I breathed three large doses of the nitrous oxyd. The pain always diminished after the first four or five inspirations, the thrilling came on as usual and uneasiness was for a few moments swallowed up in pleasure. As the former state of mind returned the state of the organ returned with it; and I once imagined that the pain was more severe after the experiment than before;" or in other words the nitrous oxyd will not permanently cure inflammation occasioned by the cutting of a tooth or by a defective tooth, although it will for the time being annihilate the pain thereby occasioned, and from such premises Dr. JACKSON, with one of those strides which characterizes all he has to say on this subject, reaches the conclusion that Sir HUMPHREY is an authority for saying "that this gas will not prevent the sensation of pain," and that too in face of the fact (also quoted by him) that Sir H. suggested that "slight surgical operations in which there is no great effusion of blood" might be rendered painless through the effect of the gas.

Sir H. is well known to have been the discoverer of the nitrous oxyd and the truth is he came within a hair's breadth of discovering also, anæsthesia itself, in its modern form. He had the great fact directly before him. He got a glimpse of it but to say that he formed a distinct conception of so paralyzing the nerves of conception that the surgeon's knife could be applied to any part of the system and not create the slightest pain, and that he entered on a course of experimentation with a view to ascertain whether the nitrous oxyd is adequate to that result, would be to state what is false. He had the high merit of discovering the nitrous oxyd, of having used it to mitigate or rather to suspend pain, and of having suggested the possibility of employing it in trivial surgical operations. Did he ever carry it into any hospital, or cause any surgeon to try its efficacy? Not at all! but he left the great fact just beneath the pathway of science, or (if you please) slightly protruding above its surface, and there it remained for near half a century, every day run over or trod on by learned professors, and zealous experimenters until HORACE WELLS, with his keen eye, detected it on the evening of the 10th of December, 1844, and dragged it out on the succeeding day, where it stands a most prominent object, occupying the gaze of the world, and where it should stand to the end of time as a fitting memorial of his sagacity, courage, humanity, and generous nature.

4. Dr. JACKSON, in speaking of the trials of the nitrous oxyd by Dr. WELLS, in Boston in 1844, uses the plural number implying that there were a considerable number of experiments, whereas there was only one—a single tooth extracted, and thus he illustrates again his latitudinous method of dealing with facts. I certainly should feel no disposition to complain of Dr. J. for treating this Boston experiment as a failure were it not for the disingenuousness of

selecting a single adverse case for comment out of a vast multitude of a directly opposite character. He can ignore them if such is his pleasure, but he may rest assured an impartial public will not.

5. But by far the most extraordinary part of the statements of Dr. JACKSON may be found in the first sentence of the above extract, wherein he in substance alleges 1. That he made "oft repeated experiments" with the nitrous oxyd. 2. That in so doing he inhaled it himself and caused it to be inhaled by others. 3. That he did this "in every possible way," or (as he expresses it on a subsequent page) "in every conceivable manner." 4. "By large and small orifices." 5. That he "soon," that is to say early in the investigation "became fully satisfied that this gas has no anæsthetic properties" whatever. 6. Then, of course, all that followed were experiments of verification merely; and 7. These established indisputably what he discovered early. All this is either plainly said or obviously implied in the language of Dr. JACKSON.

On the case thus presented I deem it proper to submit the following remarks:

1. What are we to think of any man's sense of delicacy who should undertake to settle a scientific question in which he has (in point of feeling) the deepest possible interest, adversely to the claims of others, by secret experimentation in his own private laboratory.

2. Were there not hundreds of scientific characters in the country entirely competent to the task—learned professors, adepts in the preparation and use of the nitrous oxyd, who occupy a position of strict impartiality and disinterestedness, and whose judgment would be high authority, if not conclusive, with the public? If you, Dr. J., desired a fair investigation and a result in conformity with justice and truth, why did you not make such a reference?

3. In the chapter from which the above extract is taken, Dr. J. pretends to give a history of anæsthesia prior to and concomitant with his own so-called discovery, and all he has to say of WELLS and his experiments is to be found in the concise reference to what he did in Boston in 1844, and what he did in New York in 1847, or rather what he failed to do at both, and yet he (Dr. J.) had before him the most full and conclusive proof that he (W.) had succeeded with the nitrous oxyd in dentistry and in general surgery; and even in two capital cases falling under the latter category. Not a word about the extirpation of that scirrhus testicle! Nor about the amputation of HENRY A. GOODALE's leg! Nor about the multitude of teeth which took painless leaps out of more jaws than were stricken down and smashed by the strong man on a certain occasion with the jaw bone of an ass! Not a word about any of these cases! Was the Rt. Rev. Bishop BROWNE laboring under some strange hallucination? Was his estimable daughter Miss FRANCES romancing, or have a multitude of the good people of Hartford been telling lies? What are we to think of the fairness, candor, and rectitude of such a historian of anæsthesia!

4. But the Doctor tells us in effect, he tried numerous experiments with this substance! How many? when? where? He says he tried them on himself and on others. Who, good Doctor, was present when you experimented on yourself, and who, when on others? Let us know who those third persons were, and let them speak out, for a little bolstering up of your allegations may not be without its use.

5. But he tried the nitrous oxyd "in every possible way," of course there were many! Why not give us a census of them? We all know that we are dealing with a character of vast learning and inexhaustible ingenuity in contriving how to do it, and *how not to do it!* Possibly the last idea, respected Sir, unconsciously predominated in your mind and gave a direction to your course.

6. But he tried the nitrous oxyd with large orifices and with small. As to what diameter the former had we are left in the dark, but as to the latter, we have a clew in *that knitting-needle affair*, which, according to the Doctor, transpired at Washington some years ago. Sublime spectacle! The learned Doctor seated in his professional chair with India rubber bag in hand charged with nitrous oxyd; head back, and exerting his utmost power to transfer from the interior of the aforesaid bag into the interior of his lungs the aforesaid gas (all common air excluded) *through an orifice no larger than a knitting-needle!* Countenance livid; danger of asphyxia imminent! Stop! stop! Doctor! *quantum sufficit!* The WELLS pretensions are annihilated forever!

7. After such a performance this remarkable demonstrator of anæsthesia is of course prepared to issue his ukase, which he does as follows: "I became fully satisfied that it" (the nitrous oxyd) "possessed no anæsthetic properties!" No! none whatever!

Stand aside audacious Sir, and behold with what facility I can crush out your statements and conclusions by a brief narrative of facts.

I have already stated "Mr. G. Q. COLTON, having had the good fortune to assist at the first genuine anæsthetic operation ever performed on earth" (referring to the extraction of the tooth of Dr. WELLS while under the influence of the nitrous oxyd, December 11th, 1844) "immediately resumed his lectures and continued the same until within a recent period." Being neither a dentist nor a surgeon, he had no occasion to practice anæsthesia as such, but often exhibited the nitrous oxyd to illustrate chemical principles. I am satisfied that no man on either the Eastern or Western Continent can compare with Mr. C. in the extent to which he has used this element, and that too with uniform impunity. In no case has the slightest inconvenience or evil resulted from his practice—a fact which I am disposed to note here with some emphasis, as certain interested parties are at this time seeking to create the impression that it is unsafe. Mr. C. has generally administered it before public assemblies, and had any accident

occurred it would have been blazoned to the public through the newspaper press. Not a word can be found anywhere to justify any such suggestion.

About the 1st of June, 1863, Mr. COLTON was in the City of New Haven, Connecticut, lecturing and exhibiting the nitrous oxyd as usual. Dr. JOSEPH H. SMITH, a highly respectable dentist of that city, happened to have a lady patient in a very delicate state of health to whom he was unwilling to administer the vapor of ether. He applied to Mr. COLTON for information in respect to the availability of the nitrous oxyd, and his response being favorable he engaged him to bring the article to his office, which he did accordingly, and administered the same to her, and Dr. S. extracted seven teeth while she was under its influence and apparently insensible to pain. In a deposition I now have before me Dr. S. swears that on recovering her consciousness she declared she experienced no pain whatever, and that he was and is satisfied that such was the fact. As to what followed let an extract from the same deposition, speak:

"I then commenced the use of the nitrous oxyd as an anæsthetic agent and have continued to use it to the present time" (deposition taken March 12th, 1864) "I had, in the first instance, the assistance and co-operation of said COLTON. He prepared and administered the gas, and I extracted the teeth, but I have since prepared and administered it myself. I have kept an accurate account of these operations with names of parties, dates, and number of teeth extracted, an abstract of which is contained in the schedule hereunto annexed. And I depose and say that the same is true, and the deponent further says that in no single instance has the administration of the gas been attended with any ill effects. That in most of the cases no pain whatever was experienced, and in the residue it was too inconsiderable to be noticed. My patients uniformly express much satisfaction with its effect, and I am convinced that properly made and administered it is a perfectly safe agent, and I greatly prefer it to the vapor of ether. Indeed, with my present experience, I would not use ether so long as I can obtain the gas."

The schedule of which Dr. SMITH speaks, is quite too long to be inserted in this communication, but I will transmit it to you for the information of all who may interest themselves in the subject. It is sufficient to say that it contains a daily record of the number of teeth extracted from the first of June to the close of February, being the period of nine months. The aggregate is no less than three thousand, nine hundred and twenty-nine teeth extracted under the influence of the nitrous oxyd, during the period named by one dentist in the City of New Haven, Connecticut!!! The introduction of the use of the nitrous oxyd in New Haven seems to have set the whole city on fire. The people rushed in great numbers to the office of Dr. S. and had their teeth extracted not only without pain but in a state of exhilaration and enjoyment for which I can find no language more appropriate than that already

quoted from the deposition of Mr. FRANCIS C. GOODRICH. The extent of these operations and the magnitude of the excitement will appear by producing (as I now do) so much of the above schedule as relates to the month of June.

Number of teeth extracted by Dr. J. H. SMITH, dentist, at New Haven, Connecticut, for subjects under the influence of the nitrous oxyd gas administered by Mr. G. Q. COLTON, during the month of June, 1863:

Date.	No. of Teeth.	Date.	No. of Teeth.
June 1.....	20	Am't bro't up,	898
" 2.....	50	June 15.....	77
" 3.....	17	" 16.....	85
" 4.....	34	" 17.....	40
" 5.....	87	" 18.....	87
" 6.....	34	" 19.....	14
" 8.....	145!!	" 22.....	38
" 9.....	127!	" 23.....	86
" 10.....	57	" 24.....	91
" 11.....	134!	" 25.....	104!
" 12.....	99	" 26.....	107!
" 13.....	98	" 29.....	62
		" 30.....	92
Carried 'o'd,	898		1785!!

No less than seventeen hundred and eighty-five teeth extracted in New Haven in one short month, by a single dentist, with a successful use of the nitrous oxyd as an anæsthetic! Such a magnificent result could not fail to produce a corresponding effect elsewhere. Accordingly Mr. G. Q. COLTON removed to New York early in July, 1863, and there established an anæsthetic institution (called the COLTON DENTAL ASSOCIATION) for the extraction of teeth by the use of the nitrous oxyd, at No. 22 Bond street, his principal associate is Dr. JOHN ALLEN, one of the leading dentists of the city, and there they have pursued the business to this day with success. Many of the other dentists send their patients to the association for extraction merely, and many prepare and use the gas themselves. From New York the practice has extended into the other large cities, Boston, Philadelphia, and Baltimore, and is now rapidly spreading all over the country. Dentists using the nitrous oxyd, can at present, be counted by hundreds and in a few months their "name will be legion." I predict it will, ere long, be carried into general surgery. I am convinced it can be used with facility in hospitals and in private practice though on account of its bulk, it cannot be carried on to the field of battle. It may be, to some extent, available as a remedial agent particularly in cases of reduced vitality. Not an accident has occurred. The agent has proved in all cases as safe as it was effective. In support of these views I produce here an extract from an opinion recently given by Dr. P. H. VANDERWYDE, Professor of Chemistry, New York Medical College and at the Cooper Institute, as follows:

"I am satisfied that nitrous oxyd can be used in all cases where ether and chloroform cannot be safely administered; in many cases the use of the two last-named anæsthetics, is by judicious physicians con-

sidered unsafe; notwithstanding this, there are too many cases on record where the counter-indications were overlooked, and fatal results have followed the use of ether and chloroform. I know of no case in which I would consider nitrous oxyd gas unadvisable, except in a stage of consumption so far gone, that the life of the patient may be considered as to have nearly run out, which may easily be discovered by auscultation, percussion, state of the pulse, etc.,—a state in which the little excitement attending the extraction of a tooth would be unsafe *without any anæsthetic.*" * * * * *

"When, now, we look at the hundreds of cases directly killed by ether or chloroform, on the operating chair or table, the comparative value of nitrous oxyd must be apparent."

"It is a singular fact that among the three anæsthetics now in use—ether, chloroform, and nitrous oxyd,—the first is combustible in itself, though the very *opposite* of a supporter of combustion and life; the second, chloroform, is neither combustible nor a supporter of combustion; while the last, nitrous oxyd, is a *powerful supporter of combustion and of life!*"

"The difference between the nitrous oxyd and ether and chloroform is that the first, being a supporter of combustion and respiration, stimulates the nervous system and produces an increase of vitality, while the two others, ether and chloroform, being non-supporters of combustion and respiration, depresses the nervous system, and brings vitality below the standard, though with the same final result, *perfect unconsciousness*; the difference only is that the unconsciousness produced by the increase of vital action is harmless, and the same result produced by the depression of vital action is injurious, and may prove fatal; in other words, the excitement or unconsciousness following the use of nitrous oxyd is harmless in its results, while the depression or unconsciousness following the use of ether and chloroform is connected with danger."

"The nitrous oxyd is absorbed in the lungs as a compound, the nitrogen as well as oxygen; the oxygen is partially given back in expired carbonic acid, but the nitrogen is retained. As it is known that the lungs are unable to appropriate the free nitrogen from the atmosphere, and also that the most nutritious substances contain nitrogen in combination, which is appropriated by the system as food, (the so-called nitrogenized compounds) does this not seem to indicate that *nitrous oxyd gas is, in a certain sense, nutritious?* as it introduces nitrogen in such a form and combination that it can be absorbed, retained, and appropriated by the system. Does not this explain the strengthening effects of the gas to weak persons whose nutrition is deficient, and its exhilarating, pleasant effects on almost every one? Surely, we cannot account for this by the greater amount of oxygen; if this were the case, pure oxygen would be better still, but, on the contrary, it has no such effect whatever."

Permit me to add here that I am no more convinced now of the availability of the nitrous oxyd for anæsthetic purposes than I have been for years past. Having paid particular attention to the origin of modern anæsthesia, and being personally acquainted with many, if not most, of the citizens of Hartford who have deposed to their knowledge of the facts, and having the utmost confidence in their rectitude, how could I doubt on the subject. But nevertheless, as a Lover of Truth and Justice, I feel myself under infinite obligations to Dr. JOSEPH H. SMITH and Mr. G. Q. COLTON for having revived the use of this beneficent element in connection with dentistry. The results which have followed are well adapted to bring out prominently the great truth

that there is a just God presiding over the destinies of men, and that in the dispensations of his Providence fraud, chicanery, and imposture, cannot always prevail. To the illustrious Sir HUMPHREY DAVY (as I have already remarked) the world is indebted for the discovery of by far the most effective agent for the prevention of human suffering now known; and to modest, humble, unpretending, and estimable HORACE WELLS for ascertaining its full scope and efficacy, and for having applied it with success to that important end. The ashes of the latter rest in an obscure grave, his widow and only child are in poverty, and it cannot be possible that an impartial public will deny to them the consolation which would result from a recognition of one to whose memory they cling with tender affection as a true benefactor of mankind. I regret to be obliged to add that there is another topic not very creditable to the name of Dr. CHARLES T. JACKSON (otherwise quite respectable) which I must reserve for my next communication.

A LOVER OF TRUTH AND JUSTICE.

The Ambulance Corps.

EDITOR MEDICAL AND SURGICAL REPORTER:

I have read with a great deal of interest your editorial of the 9th of January, and also the article of the Assistant Surgeon, Third Corps, dated Jan. 21st, upon the subject of the organization of an Ambulance Corps throughout the army. What your correspondent states about the organization of an Ambulance Corps in the Army of the Potomac, is undoubtedly true. When Gen. McCLELLAN landed upon the peninsula in the spring of 1862, the Ambulance Corps was entirely without organization; the drivers were boys of no responsibility and entirely without discipline. The vehicles were either two-wheeled, one-horse instruments of torture, with such elasticity of springs as to throw the sick or wounded man off his mattress and nearly against the rack placed above him for his knapsack, as the wheels dropped into the gullies or struck the logs and stumps on the Virginia roads; or they were great four-horse wagons altogether inadequate to the wants of the army. This state of things was unaltered until the experience of the campaign cried so loudly for a change, that upon the arrival of the army at Harrison's Landing, orders were issued for a proper ambulance corps organization. In July responsible drivers were given charge of the vehicles and horses; sergeants and lieutenants were detailed and charged with the discipline of the subdivisions and divisions of the corps, and the efficiency of its organization was soon proved to the satisfaction of every medical officer, during the retreat of the army to Yorktown and Newport News in August.

That this organization is still continued in that army, is shown by your correspondent before alluded to, and that the system about to be organized by Act of Congress, is based upon that already existing and so admirably adapted to the wants of the Medical

Department of the Army of the Potomac, there is no doubt; but there is a necessity that the same blessing vouchsafed to that army should be extended to all the armies in the field. How better can this be done than by Act of Congress?

The division in which I had the honor of serving, retained the above-mentioned efficient ambulance system, after being left on the peninsula, and the main body of that army had gone to reinforce the Army of POPE, and brought it to North Carolina and finally to the Department of the South.

Here, by the order of Gen. HUNTER, commanding Department, the organization was dissolved and no other system has been inaugurated in its place. It is not necessary for me to quote the statements of reliable army correspondents who accompanied the expedition to Florida, to prove the wants of the Medical Department in that campaign. The fact that all of the severely and dangerously wounded were left to the tender mercies of a debased and ignorant enemy, while officers' baggage and commissary stores were burned that the wagons might be employed for the transportation of the wounded, is another reason why an Act of Congress is necessary to establish a uniform ambulance system in all our armies, placing such an organization above the caprice or mistaken judgment of generals commanding departments.

In conclusion I would give it as my opinion that the policy of placing the ambulance train under the control of commissioned officers (not medical men) and non-commissioned officers, who are made responsible for its discipline and efficiency, and who in time of action are under the control of the chief medical officer or Medical Director of the Corps, is decidedly a correct one. Surgeons have enough to do in time of action in their attentions to the wounded, without being obliged to direct and accompany the train on the field of battle, and in those often long periods of inaction which sometimes follow great battles, a surgeon's skill and ability can be better employed than attending to the condition and efficiency of horses, harness, and ambulance vehicles.

Respectfully,

WM. F. ROBINSON,
Surgeon Pa. Vols.

MORRIS ISLAND, S. C., March 10, 1864.

Solution of Atropia in Superficial Neuralgia.

In the recent edition of his *Clinique Medicale*, Prof. TROUSSEAU recommends the following formula as a preparation that does not soil the skin or clothing like belladonna.

R. Atropine sulph. gr. iv.
Aq. dest. ℥ijss M. ft. sol.

Compresses impregnated with this fluid are applied to the seat of pain, covered with a piece of oiled silk, and secured with a ribbon or handkerchief. This may be repeated several times during the day, and should the pain not be relieved, the strength of the solution may be increased. When the neuralgia is situated in the scalp, along the course of the occipital nerves, for instance, absorption may be much facilitated by moistening the skin and roots of the hair.—*Dublin Medical Press.*

Army and Navy News.

Wounds and Injuries Received in Action.

SURGEON-GENERAL'S OFFICE,
WASHINGTON, D. C., March 23, 1864.

[Circular Letter.]

Medical Directors of armies in the field will issue the "Classified return of wounds and injuries received in action," to the chief medical officers of corps and divisions, who will see that they are properly distributed.

This form, correctly filled up by the senior medical officer of the command engaged, will be transmitted, in duplicate, through the proper channel, to the Medical Director of the army, within three days after every action.

The Medical Director of the Army, will, as soon as possible, forward to the Surgeon-General, a consolidated return of all casualties, according to the same form. He will at the same time transmit one copy of all duplicate returns received from his subordinate medical officers.

Jos. K. BARNES, Acting Surgeon-General.

[Circular Letter.]

SURGEON-GENERAL'S OFFICE,
WASHINGTON, D. C., March 22, 1864.

Clothing of Small Pox Patients.

WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE,
WASHINGTON, D. C., March 16, 1864.

[General Orders, No. 107.]

Hereafter, upon the discharge of soldiers, from small pox hospitals, the following articles of clothing will be issued to them gratuitously, by the Quartermaster's Department:

1 pair trousers, 1 blouse, 1 shirt, 1 pair drawers, 1 pair socks, 1 cap.

The infected clothing belonging to the men will be burned. By order of the Secretary of War.

E. D. TOWNSEND, Asst Adj't General.

Respectfully furnished for the information of Medical Directors.

By order of the Acting Surgeon-General.

C. H. CRANE, Surgeon, U. S. A.

Paroled Prisoners.

SURGEON-GENERAL'S OFFICE,
WASHINGTON, D. C., March 24, 1864.

[Circular Letter.]

All arrivals, transfers, discharges, desertions and deaths of Paroled Prisoners, in general hospitals, will be promptly reported to their regimental commanders.

By order of the Acting Surgeon-General.

C. H. CRANE, Surgeon, U. S. Army.

ASSISTANT SURGEON-GENERAL'S OFFICE,
LOUISVILLE, KY., March 15, 1864.

[Circular No. 3.]

1. The practice of employing soldiers whether of the Invalid Corps, acting as nurses, or enlisted men detailed as such, or men on the sick report, as private servants, cooks, or hostlers, is strictly prohibited in the General Hospitals of the Western Medical Department.

2. Medical Inspectors and Directors will promptly report any deviation from these instructions, and surgeons in charge of General Hospitals will be held strictly accountable for their execution.

R. C. WOOD, Asst Surgeon-General, U. S. A.

Public Health.

HEADQUARTERS, DEPARTMENT OF THE GULF,
NEW ORLEANS, March 11, 1864.

[General Orders No. 36.]

For the better preservation of the public health, and to protect, as far as possible, citizens and soldiers from epidemics or contagions, a Commission is hereby appointed to investigate, consider and report upon the sanitary condition of the city and its vicinity, and to recommend such precautionary measures as may be necessary to ensure public health. The

attention of the Commission is specially directed to the subject of intra mural burials, drainage, quarantine regulations, tenements of the poor, and any and all other prolific or proximate causes of disease or contagion.

Dr. J. V. C. Smith, Dr. C. Faget, and Dr. Daniel C. Holiday, will constitute this Commission. A liberal compensation will be made for their services, and a prompt attention to their duties is requested.

The Provost Marshal General is authorized and directed to furnish the Commission quarters, and such assistance as may be by them required.

The Reports of the Commission will be presented to the Medical Director of the Department.

By order of Major General BANKS.

RICHARD B. IRWIN, Asst Adj't-Gen'l.

[Official.]

Appointments.

Dr. W. S. Tremaine, of ———, to be Surgeon of 31st Regiment, U. S. Colored Troops; March 23, 1864.

W. Sayre, of New York, H. C. Smith, of New York, A. P. Cole, J. W. C. Walker, M. C. Wilcox, J. W. Batley, and W. S. McCormick, of the Volunteers, J. Fredick, of Ohio, G. M. King, of Maryland, H. D. Wagoner, of Ohio, T. S. Floyd, of New Jersey, G. Huhn, of Minn., and W. F. Feulon, of Mass., to be Hospital Stewards, U. S. Army.

Resignation.

The resignation of Surgeon John J. Reese, U. S. V., has been accepted by the President, to take effect March 20, 1864.

Orders Amended.

So much of Special Orders No. 91, February 23, 1864, from the War Department as discharged Hospital Steward Thomas Williams, Scott's "900" New York Cavalry, has been revoked.

So much of Special Orders, No. 82, February 19, 1864, from the War Department as assigned Surgeon D. McKibbin, U. S. V., to the Department of the Susquehanna, is suspended until his duties as member of the Board for the examination of applicants for commissions in the Veteran Reserve Corps is completed.

Discharged, Dismissed, &c.

Surgeon Samuel G. Lane, 5th Pennsylvania Reserves, honorably mustered out March 10 1864, he having been appointed Surgeon to the Board of Enrolment, 16th District of Pennsylvania.

Asst Surgeon Horace B. Porter, 7th Connecticut Vols., honorably discharged, at the request of the Governor of Connecticut, to accept another commission.

Asst Surgeon George King, 16th Mass. Vols., honorably discharged, at the request of the Governor of Massachusetts, to accept another commission.

Assignments, &c.

Surgeon E. McDonnell, U. S. Vols., is relieved from duty in the Department of the Gulf, and will report to the Commanding General, Middle Department, to relieve Surgeon C. W. Jones, U. S. Vols., in charge of the Newton University Hospital, Baltimore, Md.

Surgeon Jones, on being relieved, will report to Asst Surgeon-General R. C. Wood, at Louisville, Ky., for assignment to duty.

Surgeon Joseph S. Hildreth, U. S. Vols., is relieved from duty at Washington, D. C., and will report to the Medical Director, Northern Department, for duty at Chicago, Illinois.

Surgeon Samuel Kneeland, U. S. V., has been assigned to duty in charge of the University Hospital, New Orleans, La., and as member of the Board in session in that city, for the examination of candidates for admission into the Corps d'Afrique.

Surgeon J. D. Bramley, U. S. V., to duty as Surgeon in Chief, 1st Division, 4th Corps, Army of the Cumberland.

Surgeon N. R. Derby, U. S. V., to duty as Medical Director, Red River Expedition, Brigadier General A. J. Smith, commanding.

Surgeons Gideon Palmer and William Grinstead, U. S. V., to the Army of the Cumberland.

Surgeon Frederick Lloyd, U. S. V., as Surgeon in Chief, 3d Division, 14th Army Corps, Army of the Cumberland.

Surgeon R. Reyburn, U. S. V., as member of the Board for the examination of Asst Surgeons of Volunteers, at Washington, D. C.

Surgeon R. H. Gilbert, U. S. V., as Medical Director, 14th Army Corps, Army of the Cumberland.

Surgeon S. W. Gross, U. S. Vols., as Medical Director, District of Florida, Jacksonville, Fla.

Surgeon E. W. Thurm, U. S. V., as Surgeon in Chief, 3d Division, 11th Corps, Army of the Cumberland.

Surgeon Sanford B. Hunt, U. S. V., as Asst Medical Director, Northern Department, Columbus, Ohio.

Miscellaneous.

Hospital Stewards William Logan, Michael O'Brien, Joseph Leonard and Charles Steelhammer, having completed their examinations, have been ordered to return to their stations.

Surgeon Thomas W. Fry, U. S. V., has returned to Louisville, Ky., from duty as witness before General Court Martial in Washington, D. C.

General Hospitals, Nos. 5, 8 and 11, at Louisville, Ky., have been closed.

General Hospital No. 14, Beaufort, S. C., has been reopened. Asst Surgeon Wm. A. Banks, U. S. V., is on duty with Battery B, 5th U. S. Artillery, Martinsburgh, Va.

Surgeon James Bryan, U. S. V., has arrived at Pittsburg, Pa., and relieved Surgeon B. Beust, U. S. V., as Medical Director, Department of the Monongahela.

Surgeon A. H. Hoff, U. S. V., Medical Director of Transportation has established his office at 61 Barclay Street, New York.

ANSWERS TO CORRESPONDENTS.

Correspondents will please notice our reiterated request to give their full address in their communications to us. Our correspondence is very extensive, and it is necessary for us always to know the Town, County and State from whence their letters are sent.

Dr. A. H. H., Ohio.—Your Porous Cups were sent by Adams' Express on the 28th ult.

Dr. W. K. C., Ohio.—Skeleton was sent by Express on the 28th ult.

Dr. J. K., Iowa.—Bennett on Uterus, and Uterine Sound, were sent by mail on the 28th ult.

Drs. J. J. T., T. W. J., Mo., and S. W. Ruch, Pa.—Your Hand-Books were mailed on the 31st ult.

Dr. D. A. W., N. J.—Cupping apparatus delivered on the 29th ult.

Dr. S. W. R., Pa., and others.—Greenhow on Diphtheria, is out of print and cannot be procured. Shall we send Slade on the same disease?

Medical Student, New York.—The Reporter for 1861, can be furnished you for \$3. We doubt whether NEALE'S *Tubercle Dorsalis* can be found on sale, unless it be at the sale of a medical library. It can be found in the public medical libraries of this city, and probably in New York. Some of the older practitioners would be likely to have the work.

MARRIED.

GUNNING—HOLMER.—March 31st, 1864, by Rev. J. Wheaton Smith, at the First Baptist Church, Broad and Arch Streets, Dr. J. Henry Gunning, of New York, and Miss J. A. P. Holmes, of this city.

JACOBS—SHARPLESS.—In Downingtown, Pa., March 24th, by the Rev. H. Hastings Weld, George W. Jacobs, and Mary R., daughter of the late Jacob Sharpless, M. D., both of Chester County.

KING—MCCAULEY.—At Greencastle, Franklin County, Pa., March 24th, by Rev. Thomas McCauley, of Philadelphia, assisted by Rev. J. Wightman, Wm. Howard King, M. D., of Philadelphia, Surgeon of the 21st Regiment Cavalry, U. S. V., and Miss Maggie M. McCauley, youngest daughter of late Thomas McCauley, Esq., of Greencastle, Pa.

MONTGOMERY—PARKS.—By Rev. J. S. Gordon, on the 3d of March, Dr. James Montgomery, and Miss Belle Parks, all of Path Valley, Franklin County, Pa.

DIED.

COKE.—In this city, on the 23d of March, John Redman Coke, M. D., in the 91st year of his age.

HETZEL.—On March 24th, in Chicago, Ill., at the residence of her son-in-law, Henry S. Fitch, Esq., after a short illness, Mrs. Abby G. Hetzel, widow of the late J. Newton Hetzel, M. D., of Harrisburg, Pa.

HOLLOWAY.—In this city, March 26th, Mary Theresa, only daughter of Dr. William and Hannah Holloway, in the 13th year of her age.

JONES.—On Sunday morning, April 3d, Hannah D. Jones, relict of the late Dr. John Jones, in the 83d year of her age.

LEVERING.—On the 23d of March, Mary Jane, daughter of Dr. Joseph H. and Mary Jane Levering, in the 7th year of her age.

MATBERRY.—In this city, on the 27th of March, Anna Elizabeth, daughter of Dr. Wm. and Amanda E. Matberry, in the 8th year of her age.

NORSON.—At Camden, N. J., on the morning of the 26th of March, Sarah Lorraine, daughter of Dr. William M. and Lizzie M. Nelson, in the 4th year of her age.

STILES.—On the 23d of March, at Benton Barracks, Mo., Agnes Elizabeth D., wife of Edward C. Stiles, and daughter of the late Dr. Charles Lewis, of Virginia.

METEOROLOGY.

March	21,	22,	23,	24,	25,	26,	27,
Wind.....	N.	N. E.	N.	N.	E.	N. E.	N.
Weather.....	Clear.	High Wind.	Cl'dy. Snow.	Clear.	Clear.	Cl'dy. Rain. Snow.	Clear.
Depth Rain...						4.8-10	
Thermometer							
Minimum.....	16°	16°	15°	18°	25°	29°	26°
At 8 A. M.....	29	22	24	33	36	39	46
At 12 M.....	33	28	29	45	53	40	52
At 3 P. M.....	33	31	35	48	52	40	54
Mean.....	27.7	24.2	26.0	36.0	41.5	37.0	45.1
Barometer.							
At 12 M.....	30.1	30.2	30	30.1	30.1	29.7	30.1
Germantown, Pa.				B. J. LEEDOM.			

MORTALITY.

	Philadelphia. Week ending March 26.	New York. Week ending March 26.	Baltimore. Week ending March 28.	Boston. Week ending March 26.	Providence. Month of February
Popl'n, (estimated.)	620,000	1,000,000	240,000	180,000	52,000
Mortality.					
Male.....	215	258	72	49	33
Female.....	171	227	50	42	29
Adults.....	186	245	43	47	33
Under 15 years.....	178	231	75	42	33
Under 2 years.....	107	136	35	35*	9
Total.....	385	485	122	91	62
Deaths in 100,000.....	62.09	48.50	50.83	50.55	171.17
America.....	312	298	...	38	61
Foreign.....	61	187	...	53	36
Negro.....	40	71	29	1	6
ZYMOTIC DISEASES.					
Cholera, Asiatic.....	...	...	...	...	...
Cholera Infantum.....	...	2	...	...	...
Cholera Morbus.....	...	...	...	...	1
Croup.....	12	20	9	3	9
Diphtheria.....	2	7	...	...	...
Dysentery.....	7	13	4	1	4
Erysipelas.....	2	2	...	...	...
Fever, Intermittent.....	8	8	2	...	...
Fever, Remittent.....	...	1	...	...	...
Fever, Scarlet.....	1	1	...	...	...
Fever, Typhoid.....	9	17	4	5	4
Fever, Typhus.....	14	4	4	1	1
Fever, Yellow.....	13	20	...	...	...
Hoop-cough.....	...	...	...	...	...
Influenza.....	6	5	...	...	...
Measles.....	...	...	...	...	...
Small Pox.....	1	2	10	2	...
Syphilis.....	3	5	20	2	...
Trush.....	...	2	...	1	...
SPORADIC DISEASES					
Albuminuria.....	...	1	10	...	1
Apoplexy.....	...	6	9	...	1
Consumption.....	46	73	13	18	20
Convulsions.....	17	23	1	5	3
Dropsy.....	8	34	1	...	...
Gun-shot Wounds.....	1	...	...	...	...
Intemperance.....	1	9	...	...	...
Marsasmus.....	9	26	...	3	...
Pleurisy.....	4	1	1	...	...
Pneumonia.....	41	47	8	3	...
Puerperal Fever.....	1	2	...	...	1
Serofula.....	1	...	1	...	...
Violence and Acc'ts	1	19	3	1	2

* Under 5 years.

NOTICE.

American Medical Association.

The Fifteenth Annual Meeting of the "American Medical Association," will be held in the City of New York, commencing Tuesday, June 7th, 1864, at 10 o'clock, A. M.

Proprietors of medical journals throughout the United States and their Territories are respectfully requested to insert the above notice in their issues.

GUIDO FURMAN, M. D.,

126 West 25th St., N. Y.

Secretary.